

S H A R D L O W  
R U R A L D I S T R I C T C O U N C I L.

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H E A L T H R E P O R T

F O R T H E Y E A R 1902.

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J O H N A. H O G G, L.R.C.P. (Lond.), M.R.C.S. (Eng.),

M E D I C A L O F F I C E R O F H E A L T H.

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D E R B Y :

W. & J. H. H A L L, P R I N T E R S, G R E E N L A N E.



*To the Chairman and Members of the Shardlow  
Rural District Council.*

GENTLEMEN,

I have much pleasure in presenting my Second Annual Report on the health of the district.

The detailed Returns of the 1901 Census were available in October, 1902, and an abstract is given in Table I.

Points of interest are the comparatively low death rate for the year ; the low Zymotic death rate ; and the general freedom of the district from infectious disease.

Considerable improvement has been made in sanitation all round during the year.

Separate Tables are given for the Nottinghamshire parishes (Ratcliffe and Kingston), temporarily attached to the Shardlow district.

I append the Reports of Mr. Forman, Sanitary Inspector, to whom my thanks are due for his hearty co-operation during the year.

I am, Gentlemen,

Yours obediently,

JOHN A. HOGG.

*Shardlow, March, 1903.*

# ANNUAL HEALTH REPORT

## FOR THE YEAR 1902.

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**Physical Features and General Character of the District.**—The Shardlow Rural District lies south and east of the Borough of Derby. It almost surrounds the small Urban District of Alvaston, and touches the Urban Districts of Long Eaton and Ilkeston, on the east and north east respectively.

Its extent is 44,359 acres, practically 69 square miles.

The northern portion is hilly, the altitudes varying from 300 to 450 feet above sea level. To the south in the valleys of the Trent and Derwent, it is flat, seldom exceeding 100 feet above sea level. In the south-western extremity it again rises from 250 feet at Melbourne to about 400 at Derby Hills.

The principal industries are Agriculture, Coal Mining (West Hallam, Stanley Dale), Lace manufacture (Sandiacre, Melbourne, Draycott). There are paper mills at Little Eaton, boot factories at Melbourne, and breweries at Little Eaton and Shardlow.

**Geological Formation.**—The principal formations are as follows :—

*Allurium*—Barrow-on-Trent, Alvaston, Sawley, Shardlow, Swarkestone, Ratcliffe and parts of Draycott, Kingston, and Little Eaton.

*New Red Marl.*—Aston, Breaston, Chaddesden, Chellaston, Littleover, Normanton, Borrowash, Ockbrook, Risley, Hopwell, Spondon, and parts of Draycott and Kingston.

*Keuper Sandstone*.—Weston-on-Trent, Chaddesden, Hopwell, Ockbrook.

*Bunter Sandstone*.—Sandiacre, part of Dale Abbey.

*Middle Coal Measures*.—Kirk Hallam, West Hallam.

*Lower Coal Measures*.—Stanton-by-Dale, Stanley, Dale Abbey.

*Millstone Grit*.—Melbourne, King's Newton, Stanton-by-Bridge.

*Millstone Grit and Shales*.—Breadsall, part of Little Eaton.

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## VITAL STATISTICS.

*Census, 1901*.—The Registrar General's detailed report for the County of Derby was issued in October, 1902. It shews that of the 14 Rural Districts in the County, ten (Bakewell, Belper, Blackwell, Chapel-en-le-Frith, Chesterfield, Clowne, Hartshorne and Seals, Norton, Repton, Shardlow,) have increased in population, while four (Ashbourne, Glossop Dale, Hayfield, Sudbury), have decreased. The total population in rural districts was 255,014 in 1901, compared with 213,761 in 1891. Blackwell and Chesterfield rural districts shew the largest increase, Shardlow being third on the list.

The Derby Corporation Act, 1901, made considerable alteration in the size and population of the District; in the following and all other Tables I have omitted all figures relating to the annexed Parishes.

Table I.—ABSTRACT FROM CENSUS RETURNS.

Parish.	Area in Acres.	Population.										
		Inhabited Houses.		Uninhabited Houses, 1901.		Families or separate occupiers	Persons.		Males.		Females.	
		1891	1901				1891	1901	1891	1901	1891	1901
Arleston and Sinsfin	810	8	8	..	8	58	51	36	28	22	23	
Aston	1899	120	120	8	120	548	537	265	279	283	258	
Barrow	1204	61	59	3	59	307	275	148	132	159	143	
Breadsall	2441	110	110	4	111	571	515	289	262	282	253	
Breaston	1493	196	209	7	215	882	982	390	443	492	539	
Chaddesden	2175	123	120	7	120	682	584	342	310	340	274	
Chellaston	851	109	147	8	149	497	654	243	317	254	337	
Dale Abbey	1599	90	91	1	94	399	427	215	224	184	203	
Draycott	1452	249	348	55	354	1032	1504	495	729	537	775	
Elvaston	2655	108	107	7	107	519	495	263	255	256	240	
Little Eaton	573	209	231	5	230	983	992	477	488	506	504	
Littleover	1466	179	223	7	227	819	998	398	458	421	540	
Melbourne	3506	721	796	43	804	3369	3580	1584	1679	1785	1901	
Normanton	984	106	117	5	117	523	546	266	258	257	288	
Ockbrook	1853	495	579	55	579	2166	2567	1008	1230	1058	1337	
Risley	1152	48	63	1	63	248	272	124	142	124	130	
Saudiacre	1224	478	629	8	630	2256	2954	1101	1480	1155	1474	
Sawley	1860	308	380	16	382	1415	1751	697	885	718	866	
Shardlow	1204	169	193	3	192	842	948	415	493	427	455	
Spondon	2859	479	545	25	582	2208	2544	1062	1234	1146	1310	
Stanley	1129	197	258	4	259	1001	1263	534	673	467	590	
Swarkestone	996	41	33	5	35	230	146	126	73	104	73	
Staunton-by-Bridge	1433	26	28	1	28	116	141	56	66	60	75	
Stanton-by-Dale	1462	124	131	..	135	649	655	343	350	306	305	
Kirk Hallam	755	16	15	1	17	94	100	43	49	51	51	
West Hallam	1360	107	139	2	141	564	678	307	343	257	335	
Weston	1971	68	76	3	76	322	353	170	181	152	172	
Hopwell	617	6	6	..	6	48	43	26	18	22	25	
Derby Hills	323	9	7	1	7	43	41	21	20	22	21	
Sinsfin Moor*	..	11	11	1	11	69	50	39	30	30	20	
Whole District	44359	4965	5818	285	5873	23431	26629	11566	13121	11865	13508	

\* By an order of the Local Government Board, which took effect on 1st April 1902, Sinsfin Moor Parish was extended to include the part of Osmaston not annexed to the Borough of Derby.

*Population.*—At the Census of 1891, the population was 23,431; at that of 1901, 26,629. Assuming the rate of increase to continue the same as in the ten years 1891-1901, I estimate the population at the middle of 1902 as **27,059**. It will be seen from Table I, that most of the increase of population took place in the industrial and residential parts of the District; and judging by the number of new houses built during the year (*e.g.*, Sawley 35, Sandiacre 18, Melbourne 12, Littleover 8, Little Eaton 6,) it appears likely that the increase will continue.

*Births.*—The number of births registered during the year was 753; males 387, females 366. The annual Birth Rate being 27.8 per 1000 of the population. This is 1.8 lower than that for last year, and 3.7 less than the average rate for the District for the past ten years.

The excess of births over deaths was 385.

*Deaths.*--The total number of deaths was 368. Of these, 7 occurring at Shardlow Workhouse, were residents of other districts; after deducting these 361 remain, giving a Corrected Death Rate of 13.3 per 1000 of the population. 203 Males and 158 Females died during the year. The death rate was higher than that for 1901 (12.2), but that of course was exceptionally low, the average for the past ten years being 14.7. Thirty deaths were registered on Coroners' certificates after inquests, and 10 on Coroners' certificates that no inquest was necessary. Nine deaths were "uncertified," that is to say, were registered without any certificate from a medical man or from the coroner. It is unsatisfactory that over 2 per cent. of the deaths registered should be uncertified. Naturally they consist principally of infants attended by midwives only, and of persons who have been attended during the last illness by quacks and ignorant persons of all kinds. It is suggestive of great neglect at least to find that practically all un-

certified deaths occur in the poorest classes, most of them being at ages when the death would cause least pecuniary loss to the survivors, that is to say, at the extremes of life. Thus of the 9 uncertified deaths in the district during the year, 6 were infants under one year, 1 was under two, and 2 over 65 years of age. "Convulsions" was given as the cause of 5 of the children's deaths, the other 2 being "Premature birth."

The uncertified deaths were distributed as follows :—Breaston 2, Sawley 2, Little Eaton 1, Stanley 2, Ockbrook 2. None were registered in the Melbourne or Shardlow sub-districts.

*Zymotic Death Rate.*—Zymotic diseases were responsible for 24 deaths, viz., Measles 10, Scarlet Fever 3, Whooping Cough 1, Diphtheria 2, Enteric Fever 2, Diarrhoea 6. The Zymotic death rate was 0.8 per 1000 of the population. Last year it was 1.2. The low rate for 1902 was almost entirely due to the unusual freedom of the District from Diarrhoea, during the autumn months.

*Infant Mortality.*—The deaths of children under one year of age numbered 80, and are equal to an Infantile Death Rate of 106.2 per 1000 children born. Practically this means that out of every ten children born, one died under one year. This rate is lower than any recorded in the District for over ten years. As will be seen by reference to Table II it varied considerably in the different Parishes. Excluding those places having a low birth rate, where one infant death affects the rate considerably, it is interesting to notice that the highest mortality is found in the mining communities or places where females are employed in mills, while Spalding, largely residential, where the employment of female labour is slight, has the lowest infantile death rate.

A leaflet containing hints to mothers on the care and feeding of infants is given to every person registering a birth in the Melbourne, Shardlow, and Stapleford sub-districts.

Table II will be found useful for comparing the vital statistics of the different Parishes in the District.

**Table II.—Vital and other Statistics of each Parish in the Shardlow Rural District.**

Parish.	Estimated Population 1902	Births.		Birth Rate per 1000	Death Rate per 1000	Zymotic Death Rate per 1000	Infantile Death Rate per 1000 Births.
		M.	F.				
Aston	537	4	6	18.6	20.4	3.7	200.0
Barrow	275	3	6	32.7	10.9	...	111.1
Breadsall	515	3	2	9.7	18.5	...	400.0
Breaston	955	15	14	29.1	12.0	1.0	34.4
Chaddeston	584	9	9	30.6	11.9	...	111.1
Chellaston	678	11	10	30.9	13.2	...	142.5
Dale Abbey	433	5	5	23.0	9.2	2.3	300.0
Draycott	1550	18	22	25.8	12.9	0.6	75.0
Elvaston	495	2	5	14.1	16.1	...	...
Little Eaton	996	19	12	31.1	13.0	1.0	129.0
Littleover	1023	19	11	29.3	14.6	0.9	100.0
Melbourne	3610	58	61	32.9	12.7	0.8	109.2
Normanton	548	9	2	20.0	10.9	...	...
Ockbrook	2623	39	26	20.9	12.1	2.2	76.8
Risley	276	2	2	14.4	10.8	...	...
Sandiacre	3055	45	46	29.7	16.0	1.6	142.8
Sawley	1798	29	23	28.9	18.3	0.5	134.6
Shardlow	961	8	14	22.8	10.4	...	90.9
Spondon	2599	36	28	24.6	8.0	...	15.6
Stanley	1296	25	31	43.2	13.1	1.5	160.6
Swarkestone	146	0	2	13.6	6.1	...	...
Stanton-by-Bridge	153	2	2	26.1	...	...	...
Kirk Hallam	101	0	3	29.7	9.9	9.9	...
Stanton-by-Dale	656	9	8	25.9	18.2	...	58.8
West Hallam	694	10	8	25.9	20.1	...	222.2
Weston	359	4	6	27.8	16.7	...	...
Whole District	27059	387	366	27.8	13.3	0.8	106.2

## INFECTIOUS DISEASES.

*Total number of cases notified, 86 ; consisting of Small Pox 1, Diphteria 7, Enteric Fever 7, Puerperal Fever 4, Erysipelas 12, Scarlet Fever 55. Houses infected, 71.*

The number of notifications received shews a decrease all round, when compared with previous years. The small number of Typhoid Fever cases is worthy of notice. There was no serious epidemic of infectious disease during the year.

*Preventive Measures.*—Every infected house was visited by me upon receipt of the notification. When necessary, other visits were paid to make sure that the instructions given were being attended to. Directions were given as to isolation of the patient, and the steps to be taken in order to prevent the spread of the disease.

Printed leaflets, containing hints on the management of the case, and stating the penalties for neglect of the necessary precautions, were left at all infected houses. A special handbill was left at those where Typhoid Fever occurred. In suitable cases, where persons were willing to have the house disinfected by the Authority, post cards were left to be returned to me at the termination of the illness. This work was then carried out under supervision of the Inspector. The proportion of infected houses disinfected by the Authority was again larger than in previous years.

During the year, with the Council's permission, I obtained printed notice forms to be sent to the head masters of Day Schools and Superintendents of Sunday Schools, where children are notified as suffering from infectious disease. These are now sent in all cases ; they specify the nature of the complaint, the earliest

date when return to school is permissible, and suggest that a certificate of freedom from infection, either from the medical man attending the case or from me, should be required before the child is allowed to return to school.

In districts where outbreaks of infectious disease occurred caution leaflets were distributed by means of the school children, and large posters were exhibited in suitable places.

Disinfectants were supplied, free of charge, to persons unable to obtain them for themselves.

Where the Schools appeared to be connected with the spread of infection, I visited them and examined the scholars present. In addition, regular systematic visits were paid to the various Schools in the district, enquiries being made as to the general health of the children, and the prevalence of any non-notifiable infectious disease. Thanks are due to the school teachers for the ready manner in which they give information of cases of infectious disease, and render valuable help in its prevention.

The useful assistance given by the County Council, in providing a free Bacteriological examination in suspected cases of Diphteria or Typhoid Fever, was taken advantage of in several cases.

Another measure likely to be of great advantage, is the provision of Antitoxin by the District Council for treatment of Diphteria. Reference is made to this under the heading of Diphteria.

Early in the year I sent post cards to all Medical Practitioners in the District, asking them to send me a telegram if they had a case of Small Pox, in order that the time required for sending notification by post might be saved, and prompt measures taken for dealing with it.

*Hospital Accommodation.*—The Draycott Joint Hospital was completed late in the year. No Scarlet Fever case requiring removal occurred in the District, between the date of its opening for the reception of patients and the end of the year, with the exception of the one referred to under Scarlet Fever, which was removed on January 1st, 1903.

Table III shews the incidence of infectious disease upon the various Parishes, with the number of infected houses and deaths.

TABLE III shewing Notifications of Infectious Disease received, from each Parish, with the number of Infected Houses and Deaths.

Parish.	Disease.							Deaths.					
	Small Pox	Scarlet Fever.	Diphtheria	Enteric Fever.	Puerperal Fever.	Erysipelas.	Total.	Infected Houses.	Scarlet Fever.	Diphtheria	Enteric Fever.	Puerperal Fever.	Total.
Aston .. .	..	18	..	..	..	..	18	13	2	..	..	..	2
Breadsall .. .	..	1	..	..	1	..	1	1	1	..	..	..	..
Chaddesden .. .	..	..	..	..	2	..	1	1	1	..	..	..	..
Chellaston .. .	..	..	..	..	..	..	2	1	..	..	..	..	..
Draycott .. .	..	16	..	..	..	..	16	13	1	..	..	..	1
Elvaston .. .	..	1	..	..	..	..	1	1	1	..	..	..	..
Little Eaton .. .	..	..	..	..	..	..	1	1	1	..	..	..	..
Littleover .. .	..	10	..	1	..	..	11	7	..	..	..	..	1
Melbourne .. .	..	..	1	..	..	..	6	6	6	..	..	..	..
Ockbrook .. .	..	..	5	..	..	..	4	9	9	..	..	..	1
Sandiacre .. .	..	2	..	..	1	..	3	6	6	..	..	..	1
Sawley .. .	..	..	..	..	1	..	1	1	1	..	..	..	1
Spondon .. .	..	2	..	..	..	..	2	5	5	..	..	..	1
Stanley .. .	..	3	..	..	..	..	1	4	3	..	..	..	1
Stanton-by-Dale .. .	..	1	..	..	2	..	..	1	1	..	..	..	..
Kirk Hallam .. .	..	..	..	..	..	..	2	1	..	..	1	..	1
West Hallam .. .	..	1	..	..	..	..	1	1	..	..	..	..	..
Totals ... ...	1	55	7	7	4	12	86	71	3	2	2	2	9

*Small Pox.*—On Saturday, Nov. 22nd, I received notification that a person at Elvaston was suffering from Small Pox. On visiting the house I found the patient to be a young man who had been ill several days before the doctor was called in, but fortunately he had not been out of the house. When I saw him the rash was well out, and had apparently been out for about 3 days (5th or 6th day of the disease). He was removed to hospital, the room stripped and thoroughly disinfected, and all bedding, clothing, &c., used by the patient and others coming in contact with him were removed and disinfected by steam at the hospital.

The house was practically an isolated one, and luckily it was possible to find all persons who had been at all exposed to infection. Three other persons lived in the house, with a man and boy coming in every day to work. A brother of the patient (employed at Derby) had also spent a night at the house during the week. These were re-vaccinated at once. Fifteen other persons were found who might more or less have been exposed to infection; re-vaccination was agreed to by all and was successful in every case. Each person who had been exposed to infection was kept under constant supervision until all danger was past.

It is practically certain that the disease was contracted by the patient while on a visit near Hanley in Staffordshire. The incubation period (that is to say, the length of time after the disease is contracted before the first symptoms appear) of Small Pox is, in a large majority of cases 12 days. The patient's visit to Hanley was a fortnight before the onset of the disease. Exactly 14 days before he was taken ill he spent the evening at Hanley theatre, and 12 days before travelled by tram from Stoke to Hanley. On communicating with the Medical Officer of Health for that district, I found that there were several cases of Small Pox in Hanley at the time. There can be little doubt therefore, that he caught the complaint on one of these occasions.

*Scarlet Fever.*—Total number notified 55. Houses infected, 40; Houses disinfected by Sanitary Authority, 23; Deaths, 3; Case mortality, 5.4 per cent. Greatest number of notifications received in May, viz., 16; least in September, viz., nil.

This is the smallest number of Scarlet Fever cases recorded in the district for many years. From some, not very obvious cause, the whole County appears to have been very free from Scarlet Fever during the year; probably when the full returns are available it will be found that the number of cases notified throughout Derbyshire was considerably under the average.

In the district the largest outbreak was at Aston, where 18 cases, with 2 deaths, occurred between October 1st and the end of the year. The disease principally affected children attending the infants' department of the schools. On several occasions I examined all the scholars present, but could not find any with suspicious symptoms. As the outbreak appeared to be spreading rapidly, and certainly seemed connected with the schools, I recommended that they should be closed on November 3rd for a fortnight. It was, however, eventually found necessary to postpone the re-opening until December 1st. Between this date and the end of the year, only one fresh house was infected. This occurred on December 31st, and the patient was removed to the Isolation Hospital on Jan. 1st, 1903. Two cases occurred at farm houses. Strict isolation was maintained, and every possible precaution taken to prevent infection through the milk.

At Draycott 16 cases were notified, 13 houses being infected, with one death. These all occurred in the first six months of the year and were a continuation of the outbreak of last year. Eleven cases were notified at Littleover in April and May. A child pealing after Scarlet Fever was traced who had been treated by a quack.

This person told the parents that the complaint was not fever ; as a result, the child was allowed to mix with others, and naturally the disease spread until the nature of the illness was discovered, and isolation insisted upon.

*Diphtheria.*—Notifications, 7 ; Houses infected, 7 ; Deaths, 2 : Case mortality, 28.5 per cent. Last year the case mortality was 40 per cent., the average for the previous five years being 33 per cent.

Five cases (with one death) occurred at Ockbrook and Borrowash, three of which were verified by bacteriological examination. There was no apparent connection between these cases. Two were notified in October, and one in March, April, and May respectively.

As usual, insanitary conditions were found at most of the premises where Diphtheria occurred. For example, at a house in Borrowash where the illness was fatal, a drain was found in the cellar. This was supposed to be protected by a bell trap, but of course there was no water in the trap. A direct communication was thereby established between the main sewer and the inside of the house.

All these cases occurred before the Council's decision to provide a free supply of Antitoxin for use in the treatment of Diphtheria. This decision is likely to be of great benefit to the district. In order to obtain the best results, it is necessary to resort to Antitoxin promptly, and with this object in view, I arranged for a constant supply to be kept by chemists in Derby, Ilkeston, Melbourne, Long Eaton, Sandiacre, and at my house. Notice of this was sent to all Medical Practitioners in the district who are now able to obtain sufficient for immediate use by merely sending a messenger for it.

The following figures, taken from the Annual Report of the Metropolitan Asylums Board for 1901, prove beyond any shadow

of doubt, the immense benefits obtained by the Antitoxin treatment of Diphtheria, and also the advantage of its use early in the illness.

Year.	Patients treated.	Deaths.	Mortality. per cent.
* 1894	3,042	902	29.6
† 1895	3,529	729	22.5
‡ 1901	6,499	817	12.5

\* Treated without Antitoxin.

† Antitoxin first used.

‡ Antitoxin employed as routine treatment.

In other respects the treatment has been the same. It is fair therefore to assume that in London *Hospitals* alone, 1105 lives were saved by Antitoxin during 1901.

The figures shewing the value of early employment are still more striking. Thus in one hospital 723 cases were treated with Antitoxin in 1901 ; of these 78 died, giving a case mortality of 10.79 per cent. The date of its use was as follows :—

1st day of disease, 38 cases			Mortality, 0.0 per cent.		
2nd	„	170	„	4.1	„
3rd	„	192	„	11.9	„
4th	„	137	„	12.4	„
5th	„	( <sup>and</sup> <sub>later</sub> ) 186	„	16.6	„

*Enteric Fever*.—Number notified, 7 ; Houses infected, 5 ; Deaths, 2 ; Case mortality, 28.5 per cent.

The district was again remarkably free from outbreaks of Enteric Fever. Doubtless this was partly due to the cold and wet summer and autumn months, but at the same time it must be remembered that considerable improvement has been made in

the general sanitary condition of the district during the past few years.

The appointment of scavengers, for the larger parishes, allowing filth to be removed from the proximity of houses comparatively early, together with the substitution of pail closets or water closets for many of the old objectionable privy-pits, must have some effect on the number of Enteric cases. Much however remains to be done, and so long as the many existing insanitary conditions are to be found, there will be constant danger of outbreaks of Enteric Fever whenever the specific infection happens to be present.

Of the cases notified, the first at Kirk Hallam was probably imported; the second, a fatal case, occurred in the same house, and was contracted directly from the first.

The house at Shelton Lock, where two children suffered from the complaint, was situated by the canal side. The privy, open for the use of passing boatmen, had no ashpit, excreta being received in what was practically a hole in the ground. Under two yards away was a shallow well from which all drinking water was obtained. This water, I found, on examination, to be grossly polluted. It is probable that this privy had been used by some passing boatman suffering from mild undiagnosed Typhoid Fever, and the bacilli, finding their way into the well, were responsible for the disease. It is a certain fact, that any person suffering from Enteric Fever, has, in some way or another, absorbed excretal matter.

*Puerperal Fever.*—Cases notified, 4; Deaths, 2. They were distributed as follows:—Melbourne, 2; Sawley, 1 (fatal); Spondon, 1 (fatal).

The cases were isolated ones, and had no connection one with another. The midwives attending were instructed to refrain from visiting other patients until fear of infection was past.

*Erysipelas.*—Cases notified, 12; houses infected, 12; no deaths. No case was of sufficient importance to call for comment.

*Measles* were very prevalent throughout the year, and were responsible for 10 deaths, all children under 5 years of age. The deaths were distributed as follows :—

Ockbrook 3	Stanley ... 2	Sandiacre 2
Melbourne 1	Dale Abbey 1	Breaston 1

In addition to the above-named places, outbreaks occurred at Barrow, Chellaston, Draycott, Little Eaton, Littleover, Sawley, West Hallam.

The following Schools were closed, upon my recommendation, during the year on account of Measles :—

Barrow ...	from June 2nd till June 22nd
Breaston (Infants) ..,	June 19th .., July 19th
Breaston (whole school) ..,	July 11th .., July 19th
Little Eaton ... ..,	Sept. 10th .., Sept. 29th

*Whooping Cough* caused one death, an infant under one year, at Melbourne. No serious outbreak of the disease occurred, and it was not found necessary to close any Schools on account of it.

*Diarrhoea.*—Six deaths only were certified as caused by Diarrhoea, but probably a large proportion of those certified as Enteritis were really due to this complaint. The cool wet summer of 1902 was probably responsible for the small number of deaths from Diarrhoea. As I stated in my report for last year, this disease is caused by bacilli found in large numbers in soil polluted by animal excrement. In dry hot weather there is a rapid rise in the mortality from Diarrhoea, while it is low with a heavy rainfall. Typhoid Fever follows a similar course, except when outbreaks are caused by heavy rains washing surface filth into the wells. It was

found by experiment that when the earth's temperature, 4 feet deep, reached 56° F. that Diarrhoea became epidemic. Writing of this, Dr. Barwise says, "I believe this is because, when this condition prevails, the surface layers of the earth are dried, and dust is more readily produced." This suggestion appears to be strongly supported by the conditions experienced during the year, when, although the actual rainfall recorded was not excessive, yet the number of fine days was considerably below the average. A constant succession of showery days would of course prevent the formation of dust, with a corresponding decrease in the prevalence of Diarrhoea, as was actually the case during 1902. The lessons to be learnt are, to prevent pollution of the soil by privies, &c., to attend to the paving and swilling of back yards, and in fine hot weather to prevent the formation of dust by copious watering of streets in populous places.

*Phthisis*.—This disease caused 19 deaths during the year, slightly over 5 per cent. of the total deaths registered.

Consumption is as much a preventible disease as Typhoid Fever. When this fact is thoroughly grasped and acted upon, there will be as great a fall in mortality from it as there has been in that from Typhoid Fever and Scarlet Fever since notification became compulsory. Improved sanitation is doubtless one of the most powerful aids to the prevention of Consumption, but steps must also be taken to prevent its distribution broadcast by persons already suffering from it.

Phthisis Death Rates per 1000 Population for 1902 and Five preceding Years.

1897	1898	1899	1900	1901	1902
0.8	0.7	0.7	0.9	0.7	0.7

**Water Supply.**—The chief supply is derived from wells, the quality of water obtained varying in different localities, according to the geological formation and local sources of pollution. Melbourne, Sandiacre, Littleover, and Normanton have public supplies. Bread-sall and Little Eaton have also good water, obtained from springs in the hills, but more advantage should be taken of it in the latter place. Stanton-by-Dale has many houses supplied by Ilkeston public supply.

No fresh water scheme has been completed during the year, but several are in course of preparation. Stanley and West Hallam Parochial Committees have decided to enter into negotiations with the Ilkeston and Heanor Water Board, and if satisfactory terms can be arranged, it appears likely that the water will be taken. I cannot too strongly recommend them to take advantage of this supply while they have the chance. It is certainly needed in both places. Early in the year, in company with Dr. Barwise, I made a journey of inspection round these parishes for the special purpose of observing their present means of water supply.

At Shardlow, the Parochial Committee are considering the question of taking water from the Long Eaton mains at Cavendish Bridge. This very desirable scheme also appears likely to be carried out.

Table IV shews the number of houses having a public water supply.

		Inhabited Houses.	No. having Public Water Supply.
Littleover	...	226	172
Melbourne	...	797	560
Sandiacre	...	667	316
Normanton	...	117	38

**Excrement Disposal and Scavenging.**—Considerable improvement was made in these matters during the year. Public scavenging has been carried out at Normanton, Melbourne, Ockbrook and Borrowash, Sandiacre, Spondon, Sawley, Draycott, Littleover. Upon the whole, the work is done in a satisfactory manner, and has resulted in a greatly improved sanitary condition of the parishes. I should like to see arrangements made for public scavenging in most of the other parishes in the District. Farmers and others who used to take the ashpit refuse, frequently cannot do so now ; and therefore large quantities of putrifying filth remain in close proximity to the houses. Of course, this can only result in injury to health, and the money expended in scavenging would be well repaid by the decrease in sickness which would be sure to follow.

In respect to privies and ashpits, the Bye laws regulating their size and construction are now properly enforced. This is bound to be for the great good of the District in the future, ensuring, as it does, that no more of the huge, insanitary privy ashpits will be erected.

As will be seen by reference to the Inspector's Report, considerable attention was paid to this during the year, with the result that a large number of ashpit privies have been converted into pail closets, in places where there is no water carriage system. This conversion having been rendered possible, in most cases, by the appointment of scavengers. In such places as Melbourne and Sandiacre, where an efficient water carriage system is found, neither privies nor pail closets should be allowed. I should like to be able to report a larger conversion of privies into water closets, but, under the present law, this conversion can only be insisted upon when an existing privy is condemned as a nuisance.

In Aston a large proportion of the old objectionable privy-pits have been done away with and pail closets substituted for them. A scavenger for the parish has also been appointed, whose salary is to be paid by Captain Winterbottom, the owner of the estate. Some of the old conditions found in Aston were extremely bad, and Captain Winterbottom's generous action is bound to lead to a vast improvement in the health and comfort of the inhabitants.

**House Sanitation—Overcrowding.**—Cases of overerowding were found and dealt with at Draycott, Sawley, and Breadsall. The Sawley case was a very bad one, three married couples with three children occupying a small cottage with only two bed rooms.

*Houses Unfit for Habitation.*—Five houses at Draycott and Sawley were reported unfit for habitation and were closed.

*Drainage.*—In the more recent built houses, the house drainage is satisfactory, all slop pipes being disconnected, and proper gully-traps provided. In the older property however, too many bell and D traps are to be found, and a reduction in their number is very desirable.

*Systematic Inspection.*—During the year I have from time to time made regular systematic inspection of the district, generally accompanied by the Sanitary Inspector. A portion of each parish visited was taken, and in many cases practically a house to house inspection made. In the course of these inspections visits were made to Breadsall, Normanton, Sandiacre (3); Draycott (4); Elvaston, Stanley (3); Melbourne (5); Sawley (4); West Hallam, Borrowash (3); Stanton-by-Dale, Little Eaton, Chaddesden, Barrow, Chellaston, Littleover, Spondon (2); Breaston, Shardlow, Aston (2); Swarkestone, Stanton-by-Bridge. During these inspections a considerable number of defects were found, and over 70 notices were served for their removal. Other matters, such as water-supply, sewage disposal, the prevalence of non-notifiable infectious disease, &c., &c., were also attended to.

**Bye-Laws, &c.**—Bye-Laws, made in 1899, with respect to New Streets and Buildings are in force in the whole of the district. They follow closely the Model Bye-laws, are satisfactory, and well enforced.

*Urban Powers.*—Under Section 42 of the Public Health Act, 1875, are in force at Draycott, Littleover, Melbourne, Ockbrook, Normanton, Sandiacre, Spondon, and Sawley.

No new powers were obtained during the year.

**Dairies, Cowsheds, and Milk Shop Orders.**—During the year 27 persons have been registered as Cow-keepers under the Orders, representing a total of 62 cowsheds. All these have been inspected by the Inspector, frequently in company with me. Particulars were taken of the size of each cowshed and the number of cows it was intended to hold. The size and general condition of the sheds naturally varied considerably. Of ten sheds taken hap-

hazard from the list, the average capacity was 572 cubic feet per cow. It is within the power of the Sanitary Authority to adopt Regulations relating to cowsheds. The Local Government Board suggest 800 cubic feet per cow as the minimum, but many Authorities have adopted a lower standard than this. Another important factor for the well-being of the cows is the provision of ample means for letting daylight into the shed. This point is too frequently neglected, and many cowsheds would be vastly improved by lighting with glazed windows instead of small holes in the walls or door. More attention might also be given to the proper ventilation and cleanliness of the sheds.

**Factories and Workshops Act, 1901.**—This Act which came into operation on January 1st, 1902, makes considerable additions to the duties of District Councils in regard to Factories, Workshops, and Work places. Stated briefly, the following are under the supervision of the Sanitary Authority—(1) Sanitation in Workshops and Workplaces, including (*a*) cleanliness, (*b*) air space, (*c*) ventilation, (*d*) drainage of floors, (*e*) sanitary accommodation, (where Public Health Acts Amendment Act, 1890, is in force.) (2) Means of escape in case of fire. Factories, of which the construction was commenced in or after 1892, and Workshops, the construction of which was commenced in or after 1896, must, if more than 40 persons are employed, obtain from the District Council a certificate that the means of escape in case of fire are satisfactory. The certificate to state, in detail, what the means of escape are. In the case of factories or workshops built before those dates and employing more than 40 persons, it is the duty of the Council to ascertain what means of escape are provided, and if they are satisfactory. (3) The general sanitation, cleanliness, &c. of bakehouses. (4) Home work, (*a*) list of out-workers to be kept, (*b*) lists of out-workers residing in other districts but taking work from factories or workshops in the district, to be sent to the Authorities of the other

district, (c) power to prevent the giving out of work to persons living in unwholesome houses, or houses where infectious disease exists (this is a most valuable clause). Under the Act it is the duty of all persons giving out work to send a list of the out-workers to whom it is given twice a year. The Council is also required to keep a register of workshops situate in the district, and various new duties are imposed upon the Medical Officer of Health and the Sanitary Inspector. One of the duties of the Medical Officer of Health is to "report specifically on the administration of the Act in workshops and work places, and to send a copy of his report on the subject to the Secretary of State."

Attention has been given to the provisions of this Act during the year. A Register of Factories, Workshops, and Work places is kept, and all on the register have been inspected. As will be seen from the Inspector's report, 67 visits of inspection were made, (including bakehouses), and where breach of the provisions was found, the necessary notice was served and obeyed.

During the year I also paid visits to all registered workshops, workplaces, and bakehouses in the District. Steps were taken to ascertain if any workshops existed which were not upon the register, and these, when found, were duly inspected and registered. Information of these was also given to H.M. Inspector of Factories for the District. The workshop industries throughout the District are very various, and the register includes dressmakers, joiners, basket makers, blacksmiths, tailors, &c., &c. Speaking generally, the accommodation is good, in no instance was there any breach of the regulations as to air space, ventilation, or drainage of floors. Four were found to require cleansing. Notice to limewash was served and obeyed.

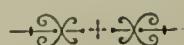
**Bakehouses.**—The Bakehouses throughout the District are quite satisfactory in structure. The only breach of the special sanitary regulations for retail bakehouses found, was of that requiring them to be limewashed once in every six months.

I am not aware of the existence of any underground bakehouse in the District.

**Outworkers.**—Practically the only outworkers' industries, are lace and curtain net mending and embroidering stockings. Lists were received from persons, within and without the District, giving out work, and from other Local Authorities. A permanent record of persons taking work is kept, together with the names and addresses of their employers. During 1902, 46 out-workers were registered. No action was found necessary in regard to unwholesome dwellings, nor did any case of infectious disease occur at houses where work was taken.

When the place of employment of any outworker was found to be in another District, information was duly forwarded to the authorities of that District.

No instance of the employment of any woman, child, or young person in a workshop where no abstract of the Act was posted up, came under my notice during the year.



**Table 1—VITAL STATISTICS OF WHOLE DISTRICT DURING 1902 & PREVIOUS YEARS.**

**SHARDLOW RURAL DISTRICT.**

Year.	Population estimated to Middle of each year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all ages belonging to the District.				
				Under 1 Year of age		At all ages.									
		Number	Rate.*	Number	Rate per 1000 Births Registered.	Number	Rate.*				Number	Rate.*			
1	2	3	4	5	6	7	8	9	10	11	12	13			
1892	26,861	960	35.7	106	110.3	449	16.7	13			449	16.7			
1893	27,433	912	33.2	98	107.5	453	16.5	14			453	16.5			
1894	28,021	838	29.9	92	109.7	346	12.3	10			346	12.3			
1895	28,619	895	31.2	111	124.1	445	15.5	22			445	15.5			
1896	29,230	896	30.6	98	109.3	423	14.4	23			423	14.4			
1897	29,861	960	32.1	107	111.4	427	14.2	29			427	14.2			
1898	30,494	969	31.7	134	138.2	453	14.8	22			453	14.8			
1899	31,144	955	30.6	138	144.5	502	16.1	35			502	16.1			
1900	31,812	992	31.1	155	156.2	513	16.1	19	12		501	15.7			
1901	32,491	962	29.6	118	121.6	406	12.4	16	9		397	12.2			
Averages for years 1892-1901.	29,596	933	31.5	115	123.2	441	14.9	20	...		439	14.8			
*1902	27,059	753	27.8	80	106.2	368	13.5	17	7		361	13.3			

\* Rates in Columns 4 and 8 calculated per 1000 of estimated population.

NOTE—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the District. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-Residents" is meant persons brought into the District on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the District on account of sickness or infirmity, and have died in public institutions elsewhere.

\* Parts of Normanton, Osmaston, Spondon and Chaddesden annexed to the Borough of Derby in November, 1901.

The "Public Institution" taken into account for the purposes of these Tables is Shardlow Union Workhouse.

**Area of District in Acres** (exclusive of area covered by water)—**44.359.**

**Total Population at all ages—26,629** (Census 1901).    **Number of Inhabited Houses—5,818** (Census 1901).

**Average Number of Persons per House—4.5** (Census 1901).



TABLE II.

**Vital Statistics of Separate Localities in 1902 and previous years,**  
**SHARDLOW RURAL DISTRICT.**

Names of Localities.	1 WHOLE DISTRCT.			2 ARLESTON AND SINFIN.			3 ASTON-ON-TRENT.			4 BARROW-ON-TRENT.			5 BREADSALL.			6 BREASTON.			7 CHADDESDEN			8 CHELLASTON.								
Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.						
1892	26,861	960	449	106	35	...	543	6	10	2	330	11	4	2	566	14	6	1	893	29	19	6	672	27	4	1	519	15	5	1
1893	27,433	912	453	98	36	...	549	14	8	1	330	16	6	2	561	9	9	1	904	28	9	4	666	27	13	2	528	12	8	1
1894	28,021	838	346	92	38	...	549	9	9	3	328	11	6	1	556	9	6	1	913	23	11	3	652	18	11	0	538	14	6	1
1895	28,619	895	445	111	40	...	550	18	6	2	320	8	2	0	557	12	6	1	923	31	21	4	642	25	21	4	549	13	6	0
1896	29,230	896	423	98	41	...	546	14	7	0	310	7	4	0	547	13	4	1	933	34	12	4	632	15	11	2	564	25	10	1
1897	29,861	960	427	107	44	...	545	10	11	3	310	11	2	0	542	12	8	1	944	30	12	2	622	16	5	2	579	14	7	3
1898	30,494	969	453	134	45	...	540	15	7	2	300	11	1	0	536	10	8	1	953	37	18	8	612	25	2	0	597	19	5	0
1899	31,144	955	502	138	47	...	540	16	5	2	294	7	5	2	531	14	5	1	963	26	11	6	602	21	11	4	617	14	8	2
1900	31,812	992	501	155	49	...	540	11	13	3	284	9	6	1	525	10	13	1	974	29	14	3	592	15	7	0	637	18	8	1
1901	32,491	962	397	118	52	...	537	15	8	3	275	1	4	1	515	15	6	2	985	34	16	4	584	15	7	2	657	12	6	3
Averages of Years 1892 to 1902	29,596	933	439	115	41	...	543	12	8	2	308	9	4	1	543	11	7	1	938	30	14	4	626	20	9	1	578	15	6	1
1901	27,059	753	361	80	52	...	537	10	11	2	275	9	3	1	515	5	7	2	995	29	12	1	584	18	7	2	678	21	9	3

NOTES.—(a) The separate Localities adopted in this Table are areas of which the populations are obtainable from the census returns, such as Wards, Parishes, or groups of Parishes.

(b) Deaths of residents occurring in Public Institutions beyond the District are included in sub-columns *c* of this Table, and those of non-residents registered in Public Institutions in the District excluded. (See Note on Table I as to meaning of terms "resident" and "non-resident".)

(c) Deaths of residents occurring in Public Institutions, whether within or without the District, are allotted to the respective Localities according to the addresses of the deceased.

Up to 1901 the returns for Stanton-by-Bridge and Kirk Hallam were included with those for Swarkestone and West Hallam respectively.

By Local Government Board Order in 1902, Sinfon Moor Civil Parish was extended to include Osmaston Civil Parish.

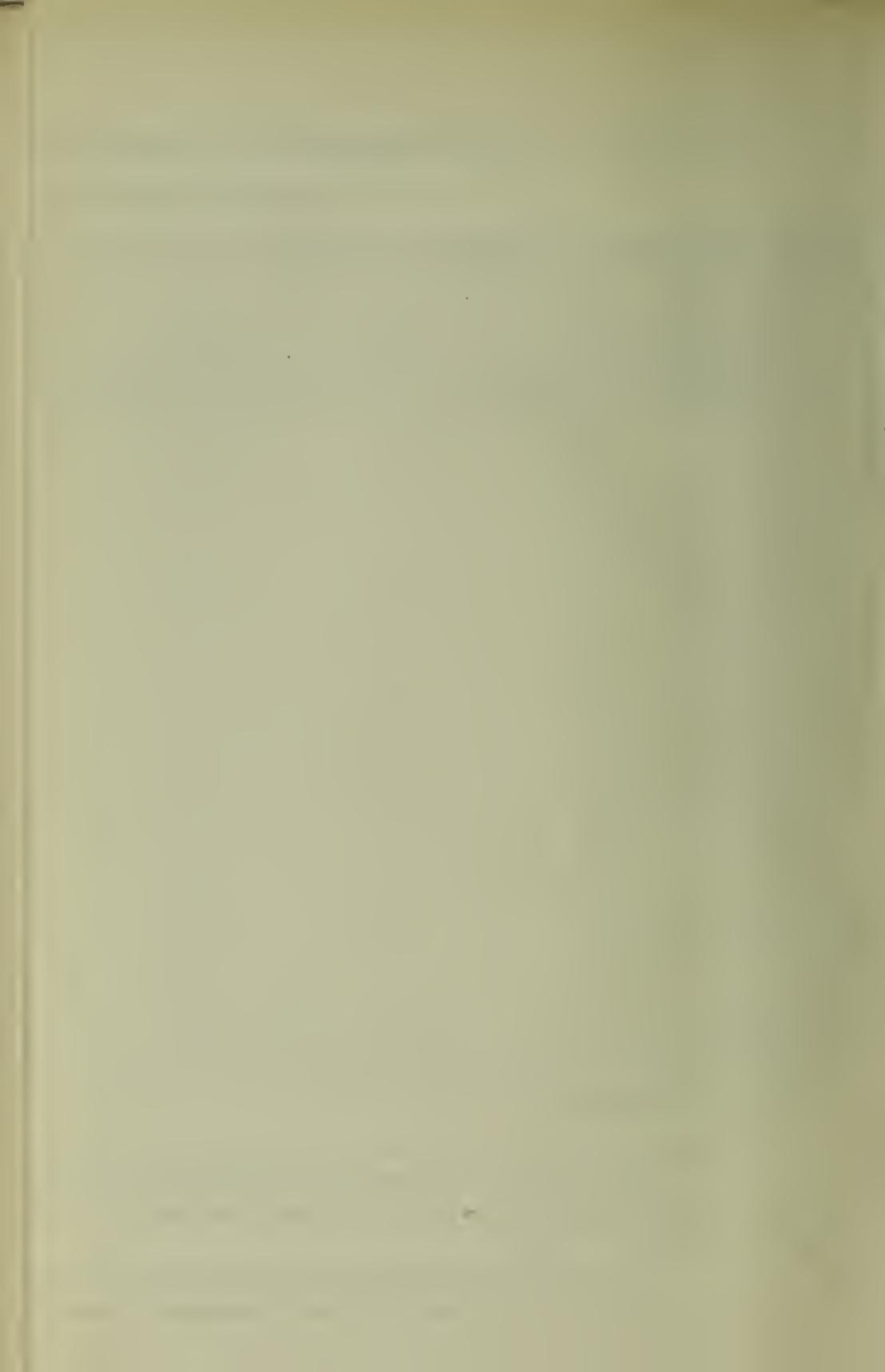


TABLE II (continued).

**Vital Statistics of Separate Localities in 1902 and previous years.**

Names of Localities.	Year.	9 DALE ABBEY.				10 HOPWELL.				11 DRAYCOTT.				12 ELVASTON.				13 LITTLE EATON				14 LITTLEOVER				15 DERBY HILLS				16 MELBOURNE.			
		a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d				
1892	401	11	6	1	48	..	..	..	..	1082	39	23	5	515	12	8	3	984	25	16	2	839	35	13	3	43	3394	111	52	14			
1893	404	17	12	3	48	..	..	..	..	1122	33	19	7	513	11	9	0	985	33	21	6	856	34	11	4	43	3415	124	59	14			
1894	404	12	6	3	48	..	..	..	..	1163	42	22	6	511	13	7	1	986	44	18	6	873	29	5	2	43	3436	104	53	12			
1895	407	9	7	2	48	..	..	..	..	1212	33	32	5	509	16	5	1	987	29	19	6	891	28	15	3	42	3457	118	41	14			
1896	410	7	6	2	48	..	..	..	..	1257	49	25	4	507	13	9	2	989	29	15	4	908	33	19	5	43	3478	88	42	16			
1897	413	9	5	1	48	..	..	..	..	1309	57	25	6	505	10	3	0	990	36	21	6	926	33	13	1	43	3499	126	37	6			
1898	417	9	3	2	48	..	..	..	..	1356	59	25	6	503	8	6	0	991	39	16	5	942	27	17	6	43	3520	105	62	18			
1899	422	11	5	1	45	..	..	..	..	1408	63	25	6	501	15	12	2	993	28	11	3	964	29	10	0	43	3542	88	56	10			
1900	425	7	8	4	42	..	..	..	..	1462	53	29	10	499	9	4	2	994	38	19	5	983	32	15	6	43	3563	106	49	17			
1901	428	15	5	2	43	..	..	..	..	1518	60	19	4	495	7	3	0	994	30	12	4	1002	26	10	3	41	3585	102	54	11			
Averages of Years 1892 to 1901	413	10	6	2	46	..	..	..	..	1288	48	24	6	505	11	6	1	989	33	16	4	918	30	12	3	43	3488	107	50	13			
1902	433	10	4	3	43	..	..	..	..	1550	40	20	3	495	7	8	0	996	31	13	4	1023	30	15	3	41	3610	119	46	13			

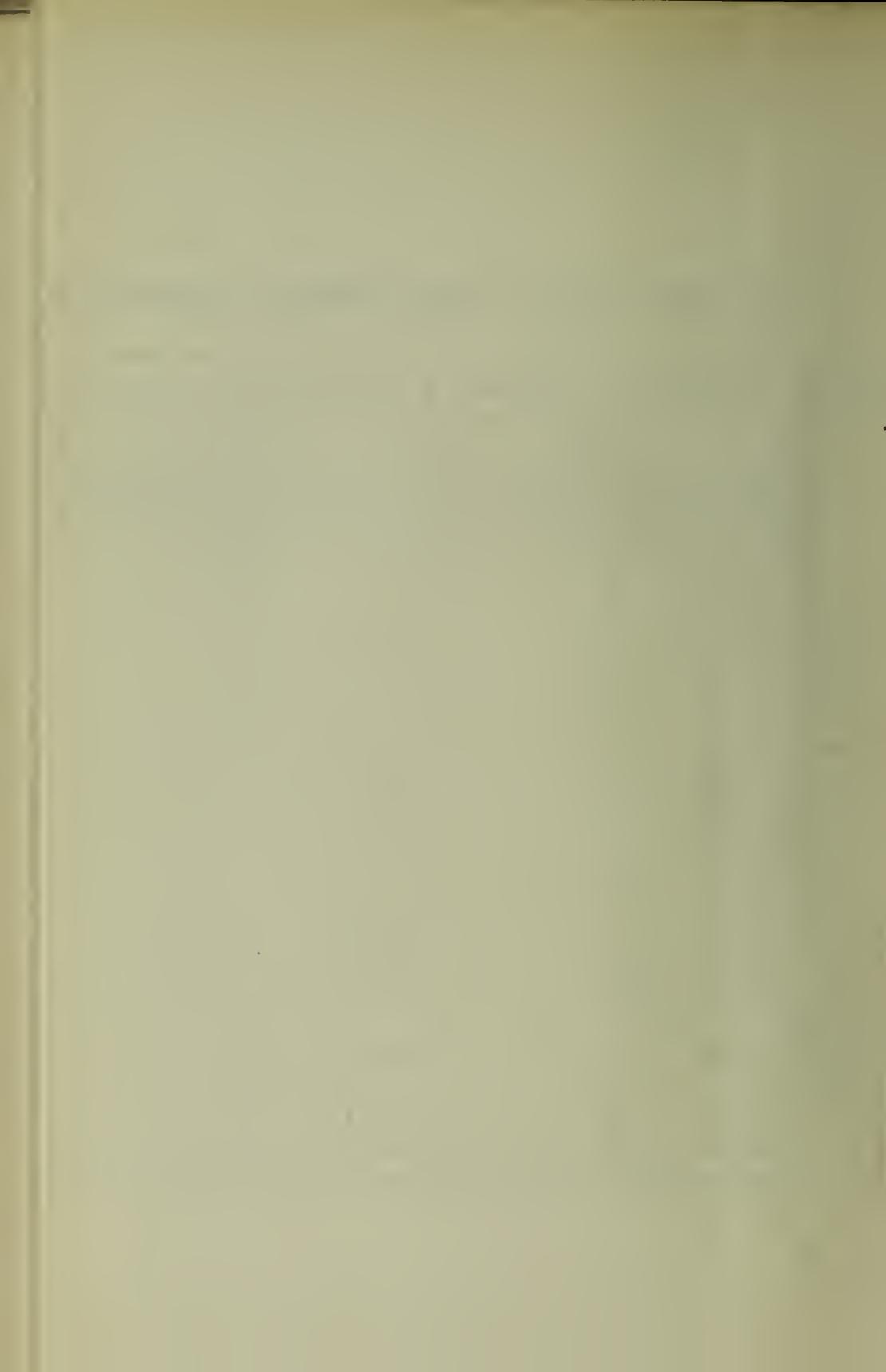


TABLE II (continued).

**Vital Statistics of Separate Localities in 1902 and previous years.**

Names of Localities.	17 NORMANTON.				18 OCKBROOK AND BORROWASH.				19 OSMASTON.				20 RISLEY.				21 SANDIACRE.				22 SAWLEY.				23 SHARDLOW.				24 SINFIN MOOR			
	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>	Population esti- mated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Births under 1 year. <i>d</i>								
1892	1371	44	11	3	2212	68	30	5	2111	87	40	14	249	3	0	...	2333	87	54	13	1453	45	27	6	855	20	12	1	38			
1893	1539	38	13	3	2266	58	34	6	2148	85	38	11	251	5	8	...	2397	99	48	13	1484	50	24	4	866	26	11	2	38			
1894	1728	42	15	8	2288	70	24	4	2185	81	25	11	253	2	1	..	2462	74	24	7	1516	38	22	6	868	20	10	2	38			
1895	1941	41	25	6	2329	65	31	7	2223	81	26	11	255	3	3	..	2529	80	45	10	1548	65	25	6	888	22	13	2	38			
1896	2179	61	23	10	2373	86	51	10	2266	82	28	10	258	5	4	..	2599	93	38	9	1582	45	18	5	899	21	7	0	38			
1897	2447	64	25	7	2407	79	31	9	2300	83	31	13	261	6	7	5	2670	83	40	14	1616	51	28	5	911	23	9	1	38			
1898	2748	101	33	15	2449	65	38	15	2342	80	25	10	260	3	4	..	2743	107	32	11	1650	54	34	10	924	14	10	3	38			
1899	3086	102	48	24	2491	71	40	6	2385	82	28	15	266	7	4	1	2817	109	48	13	1686	45	41	13	934	25	11	2	38			
1900	3465	117	46	23	2534	79	41	15	2421	86	36	10	270	5	3	1	2895	100	56	21	1722	76	33	5	944	17	16	3	38			
1901	3891	126	36	21	2577	73	33	6	2465	68	29	11	273	4	0	..	2976	94	50	16	1759	52	27	8	950	24	5	0	38			
Averages of Years 1892 to 1901	2439	73	27	12	2392	71	35	8	2284	81	30	11	259	4	3	..	2642	92	45	12	1601	52	27	6	883	21	10	1	38			
1902	548	11	6	0	2623	65	32	5	...	...	...	...	276	4	3	0	3055	91	49	13	1798	52	33	7	961	22	10	2	50			

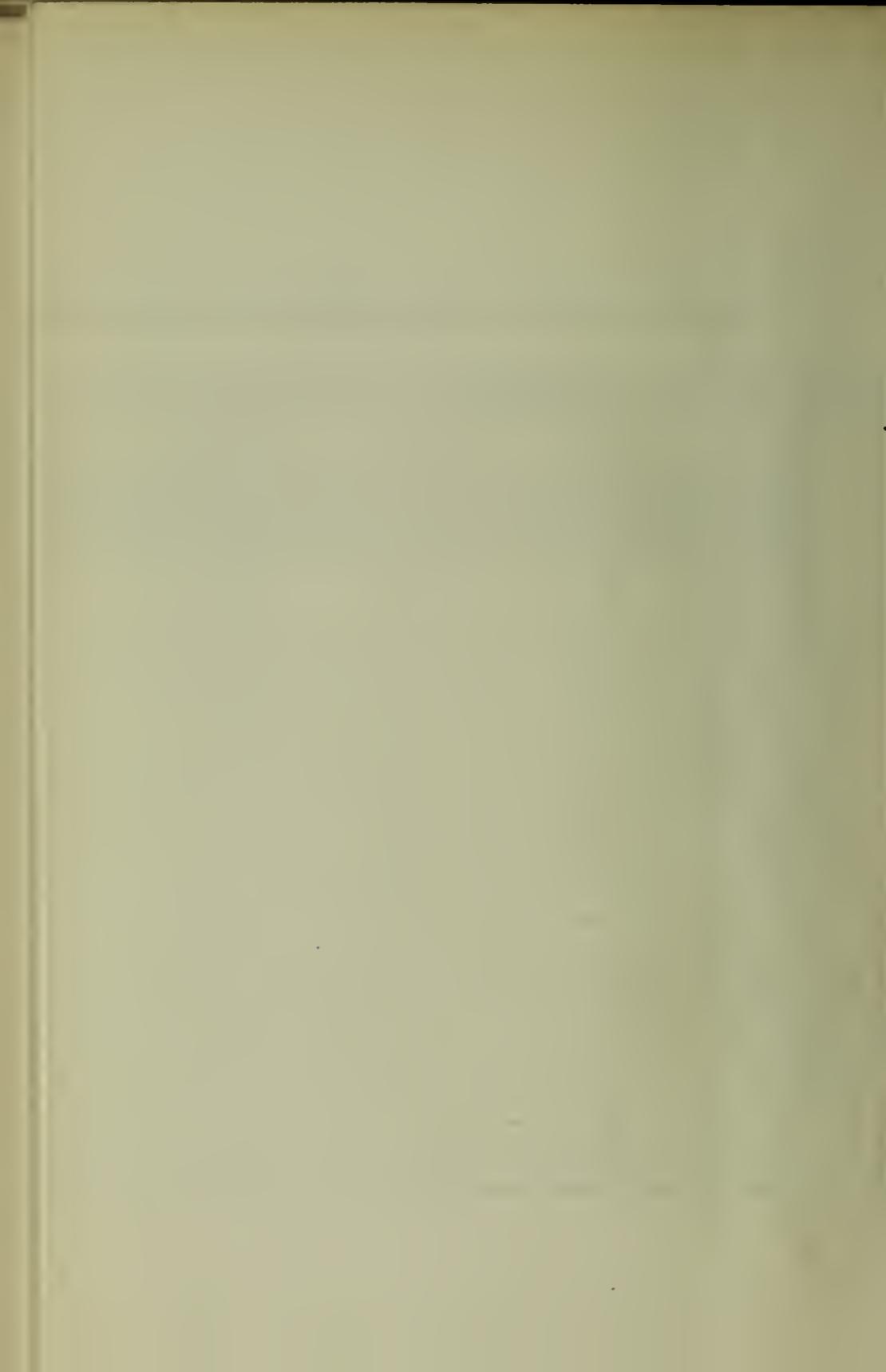


TABLE II (continued).

**Vital Statistics of Separate Localities in 1902 and previous years,**

Names of Localities.	25 SPONDON.				26 STANLEY.				27 SWARKESTONE				28 STANTON-BY-BRIDGE.				29 KIRK HALLAM				30 STANTON-BY-DALE.				31 WEST HALLAM				32 WESTON-ON-TRENT.			
Year.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.	a Population estimated to middle of each year. Births Registered. Deaths at all Ages.	b Population estimated to middle of each year. Births Registered. Deaths at all Ages.	c Population estimated to middle of each year. Births Registered. Deaths at all Ages.	d Population estimated to middle of each year. Births Registered. Deaths at all Ages.								
1892	2248	56	35	7	1030	46	19	8	220	6	4	...	118	...	...	...	94	...	...	...	650	18	7	1	577	19	16	5	326			
1893	2281	72	27	4	1055	55	10	2	272	5	5	...	120	...	...	...	95	...	...	...	650	14	12	2	588	17	7	1	329			
1894	2311	71	23	7	1079	38	8	1	204	9	2	...	122	...	...	...	95	...	...	...	652	22	9	2	599	13	5	2	332			
1895	2337	76	35	8	1105	58	18	10	196	13	5	...	124	...	...	...	96	...	...	...	653	15	14	1	610	17	13	5	335			
1896	2381	76	26	6	1131	51	11	3	188	2	2	...	126	...	...	...	96	...	...	...	653	21	11	1	621	15	7	0	338			
1897	2416	82	33	10	1152	55	18	8	179	8	3	1	128	...	...	...	97	...	...	...	654	17	12	4	645	15	10	3	342			
1898	2451	60	30	6	1185	60	17	8	170	10	2	...	131	...	...	...	98	...	...	...	654	13	10	1	657	27	8	3	345			
1899	2486	71	35	10	1212	50	33	11	160	8	3	...	134	...	...	...	98	...	...	...	654	21	11	1	633	23	7	1	348			
1900	2522	72	31	6	1241	62	20	10	150	4	4	...	139	...	...	...	100	...	...	...	655	9	6	1	669	21	8	2	351			
1901	2559	76	21	6	1268	49	25	7	146	4	4	...	147	3	1	1	101	6	2	0	656	12	4	0	681	16	8	3	354			
Averages of Years 1892 to 1901	2399	71	29	7	1147	52	17	6	182	7	3	...	128	...	...	...	97	...	...	...	652	15	9	1	628	18	9	2	340			
1902	2599	64	21	1	1296	56	17	9	146	2	1	0	153	4	0	0	101	3	0	0	656	17	12	1	694	18	14	4	359			

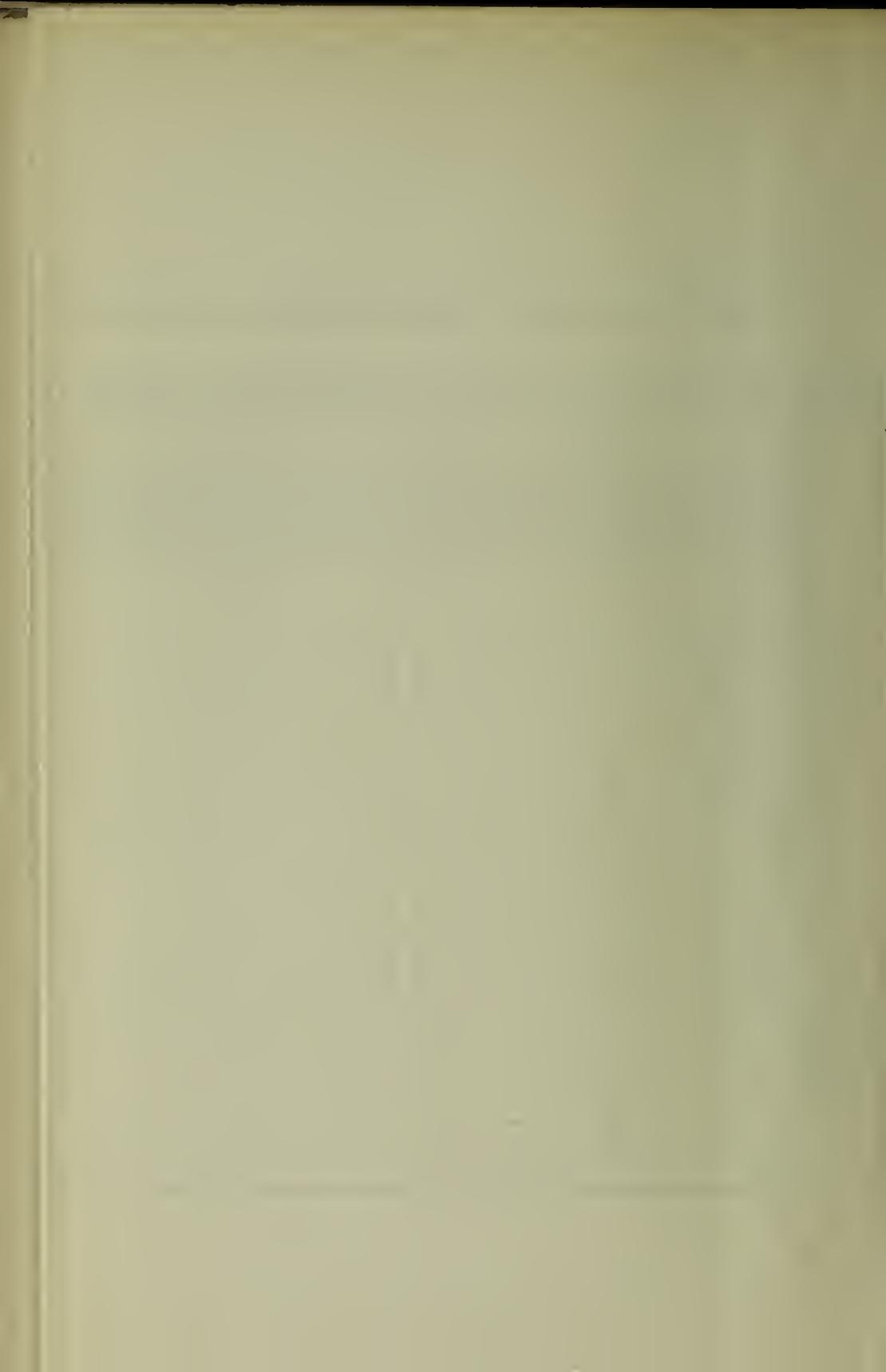


TABLE III. Cases of Infectious Disease notified during the Year 1902.

## SHARDLOW RURAL DISTRICT.

NOTIFIABLE DISEASE.	Cases Notified in whole District.						Total Cases Notified in each Locality.										Arlesthorpe and Sinfin.					Aston-on-Trent.					Barrow-on-Trent.			Breadsall.		Dale Abbey.		Hopwell.		Draycott.		Elvaston.		Little Eaton.		Littleover.	
	At all Ages.			At Ages—Years.																																							
		Under 1	1 to 5.		5 to 15		15 to 25.		25 to 65.	65 and upwards.		1	Sinfin.		2	3		1	2		3	4		5	Breaston.		6	Chaddesden.		7	Chellaston.		8	9		10	11		12	13			
Small Pox	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...										
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...											
Diphtheria	...	...	7	...	...	...	2	3	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...											
Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...											
Erysipelas	...	...	12	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...											
Scarlet Fever	...	...	55	...	17	35	2	1	...	...	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...											
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...												
Enteric Fever	...	...	7	...	...	...	4	2	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...												
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...												
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...												
Puerperal Fever	...	...	4	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...												
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...												
Totals	...	...	86	...	19	42	4	21	...	...	...	...	...	...	...	...	...	18	...	1	...	1	2	...	...	...	...	16	1	1	11												

NOTES.—The Localities adopted for this Table are the same as those in Tables II and IV Two cases of Enteric Fever from Chellaston were removed to Derby Infirmary.



TABLE III (continued). Cases of Infectious Disease Notified during the Year 1902.

NOTIFIABLE DISEASE.	Total Cases Notified in each Locality.																		
	Derby Hills.	Melbourne.	Normanton.	Ockbrook and Borrowash.	Risley.	Sandiacre.	Sawley.	Shardlow.	Sinfin.	Spondon.	Stanley.	Swarkestone.	Stanton-by-Bridge.	Stanton-by-Dale.	Kirk Hallam.	West Hallam.	Weston-on-Trent.	Shardlow Workhouse.	
Small Pox ...	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Diphtheria ...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Erysipelas ...	2	...	...	4	...	3	...	...	...	2	1	...	...	...	...	...	...	...	
Scarlet Fever ...	1	...	...	...	...	2	...	...	...	2	3	...	...	1	...	...	1	...	
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Enteric Fever ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Puerperal Fever ...	2	...	...	...	...	1	...	...	...	1	...	...	...	...	2	...	...	...	
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
<b>Totals</b> ...	...	6	...	9	...	6	1	...	...	5	4	...	...	...	1	2	1	...	

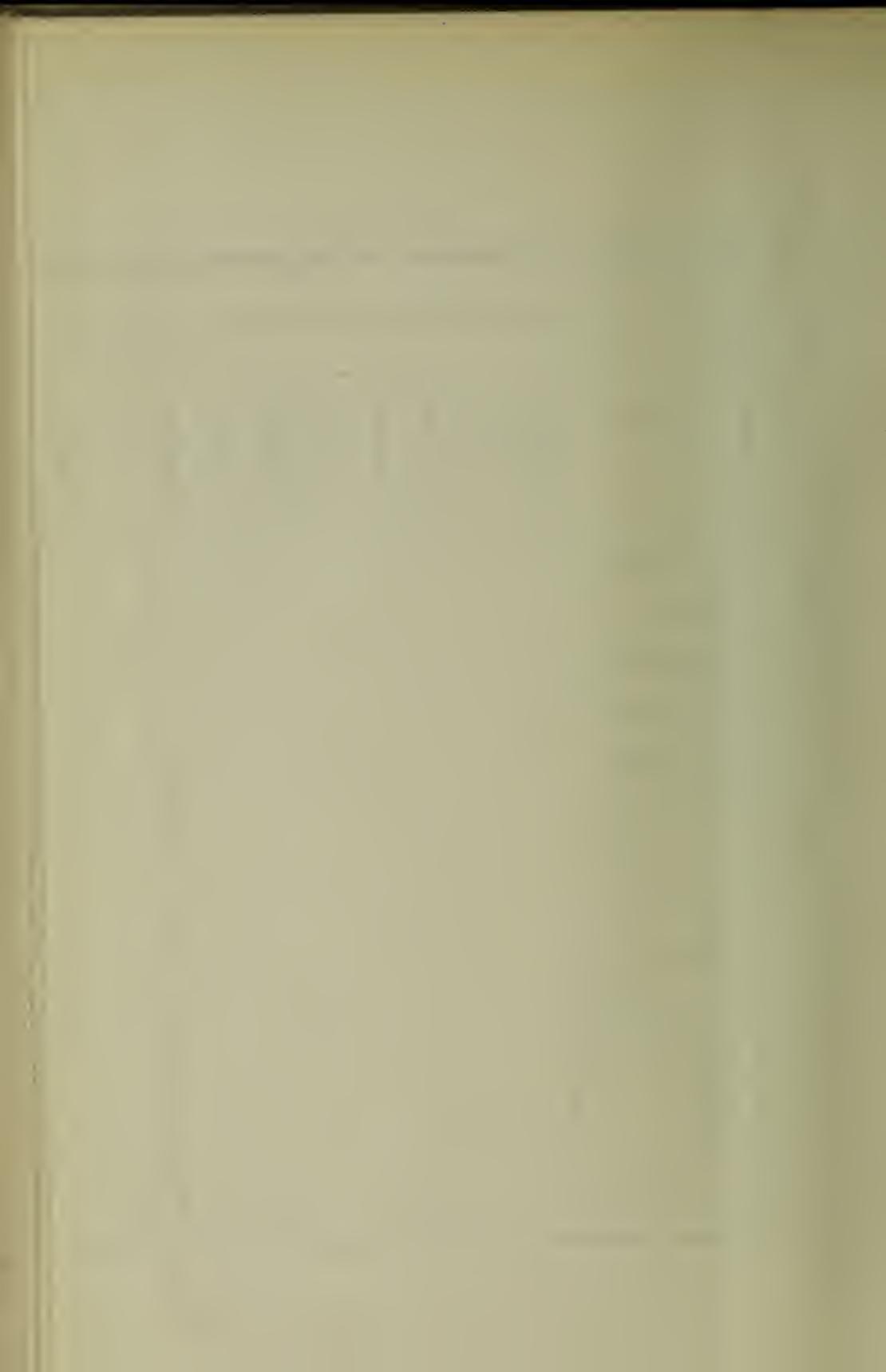


TABLE IV.

**CAUSES OF, AND AGES AT, DEATH DURING YEAR 1902.**  
**SHARDLOW RURAL DISTRICT.**

CAUSES OF DEATH. 1	Deaths in or belonging to whole District at subjoined Ages.								Deaths in or belonging to Localities (at all ages.)																				Total Deaths in Public Institutions in the District (Shardlow Work'se.) 39					
	All Ages. 2	3	Under 1 year. 4	1 and under 5 5	5 and under 15 6	15 and under 25 7	25 and under 65 8	65 and upwards 9	Arlington and Sinfin. 10	Aston-on- Trent. 11	Barrow-on- Trent. 12	Breaston. 13	Chaddes- den. 14	Chellaston. 15	Dale Abbey. 16	Hopwell. 17	Draycott. 18	Elvaston. 19	Little Eaton. 20	Melbourne. 21	Derby Hills. 22	Normanton Ockbrook and Borrowash. 23	Risley. 24	Sandiacre. 25	Sawley. 26	Shardlow. 27	Sinfin Moor. 28	Spondon. 29	Stanley. 30	Swarke- stone. 31	Stanton- by-Bridge. 32	Stanton- by-Dale. 33	Kirk Hallam. 34	West Hallam. 35
Small-Pox ...	10	4	6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Measles ...	3	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Scarlet Fever...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Diphtheria & Mem- branous Croup ...	2	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Fever { Typhus ...	2	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Enteric ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Other cont'd	3	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Epidemic Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Diarrhoea (see notes)	6	3	...	...	...	...	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Enteritis (see notes)	13	10	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Puerperal Fever ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Other septic diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Phthisis ...	19	...	...	...	...	...	4	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...		
Other Tubercular Diseases ...	6	1	2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Cancer, Malignant Diseases ...	18	...	4	...	...	8	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		
Bronchitis ...	28	14	4	...	...	5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1			
Pneumonia ...	22	7	10	...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1			
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Other Diseases of Respiratory Organs	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Alcoholism { Cirrhosis of Liver ...	5	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Venereal Diseases...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Premature Birth ...	10	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Diseases & Accidents of Parturition ...	3	...	1	2	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Heart Diseases ...	47	2	1	5	3	21	19	...	1	1	1	2	...	...	...	6	3	1	3	1	1	...	...	...	...	...	...	...	...	4				
Accidents ...	17	...	2	5	3	5	2	...	1	1	1	1	...	...	...	...	2	1	1	1	1	1	...	...	...	...	...	...	...	...	...			
Suicides ...	3	...	...	...	...	3	...	...	1	1	1	1	...	...	...	1	2	1	3	2	1	...	...	...	...	...	...	...	...	...				
Convulsions ...	18	12	5	1	4	26	72	...	3	2	5	4	1	...	1	8	4	4	6	...	15	3	10	2	...	8	6	...	10	1				
All other causes ...	122	16	1	3	4	26	72	...	3	2	5	4	1	...	1	9	4	...	20	8	13	15	1	46	6	32	3	49	33	10	...	21	17	1
All causes ...	361	80	35	15	20																													



## NOTES.—TABLE IV.

(a) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are included with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner excluded from columns 2-8 and 9-15 of this Table.

(b) See notes on Table I, as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" taken into account for the purposes of these Tables. The "Localities" are the same as those in Tables II and III.

(c) All deaths occurring in public institutions situate within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), entered in the last column of this Table.

(d) Under the heading of "Diarrhoea" are included deaths certified as from diarrhoea, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis ;  
 Zymotic enteritis ;  
 Epidemic diarrhoea. Summer diarrhoea ;  
 Dysentery and dysenteric diarrhoea ;  
 Choleraic diarrhoea, cholera, cholera nostras  
 (in the absence of Asiatic cholera).

Under the heading of "Enteritis" are included those certified as from Gastro-enteritis, Muco-enteritis, and Gastric catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health had reason for including such deaths, especially those of infants, under the specified term "Diarrhoea."

Deaths from diarrhoea secondary to some other well defined disease are included under the latter.

**Ratcliffe and Kingston-on-Soar temporarily attached to Shardlow Rural District.**

---

Area in Acres . . . . .	2360
Inhabited Houses . . . . .	79

**Population Census, 1901 :—**

Kingston . . . . .	271
Ratcliffe . . . . .	142

**Births Registered during 1902 :—**

Kingston, 6. Males, 2 ; Females, 4.

Ratcliffe, 2. Males, 2 ; Females, 0.

**Deaths Registered during 1902 :—**

Kingston, 4.

Ages—1 to 5, 1 ; 15 to 25, 1 ; 25 to 65, 2.

Cause—Accident, 1 ; other causes, 3.

Ratcliffe, Nil.

Notification of Infectious Disease, Nil.

TABLE V. Vital Statistics of each Locality in 1902  
and previous years.

**RATCLIFFE AND KINGSTON.**

Names of Localities.		1 KINGSTON.				2 RATCLIFFE.			
Year.		Population estimated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Deaths under 1 year. <i>d</i>	Population estimated to middle of each year. <i>a</i>	Births Registered. <i>b</i>	Deaths at all Ages. <i>c</i>	Deaths under 1 year. <i>d</i>
1892	...	271	8	1	...	135	1	4	...
1893	...	271	6	3	1	135	5	5	1
1894	...	271	6	8	2	135	3	2	1
1895	...	271	8	2	1	136	2	2	...
1896	..	271	6	7	...	136	3	4	1
1897	...	271	3	2	...	136	2	2	1
1898	...	271	6	2	...	136	3	3	1
1899	...	272	3	6	2	136	3	3	...
1900	...	272	9	1	1	128	5	6	...
1901	...	272	3	1	..	140	6	...	...
Averages of Years 1892 to 1901.		271	6	3	...	135	3	3	...
1902	..	273	6	4	...	142	2	...	...

## Shardlow Rural District.

—:o:—

### Report of Sanitary Inspector and Surveyor.

—:o:—

A large number of dwelling-houses and premises have been systematically inspected, also factories, workshops, cowsheds, slaughterhouses, bakehouses, &c.

There is a great improvement in the condition of closets and closet accommodation, the majority of privies at new houses being built according to the model plans now in use, and in parishes where a public supply of water is available, water closets largely take the place of other kinds.

The figures in other reports will give an idea as to the large number of nuisances dealt with and abated, also other particulars.

---

### Scavenging, Repairs to, and Cleaning out of, Sewage Tanks, Sewers, &c., and Sewage Disposal, &c.

*Aston-on-Trent.*—A Scavenger has been appointed, and the cost is munificently defrayed by W. D. Winterbottom, Esq., thus causing a long felt want to be supplied. A considerable alteration and great improvement have also taken place, owing to the removal of old privy middens too near houses, and the substitution for them of pail closets.

*Breaston.*—The sewers have been periodically flushed, and manholes and filter beds cleaned out quarterly. The sewage tank requires alterations. The matter is in the hands of the Parochial Committee.

*Chellaston.*—The outfall ditches have been cleaned out as usual.

*Draycott.*—The sewers have been flushed automatically, and the manholes cleaned out. Improvements are in hand at the Sewage Farm. The appointment of a scavenger has proved effective.

*Melbourne.*—Water closets are the rule in all new buildings. The town water is growing in popularity, and the scavenging is a thorough success. The sewers are also flushed regularly. Water closets have been substituted in places for privies, and a large number of nuisances abated.

*Elvaston.*—The main sewer at Thulston has been taken up for some distance and relaid, and the re-arrangement of the system of drainage is under consideration.

*Littleover.*—The sewage tank has been cleaned out, and a scavenger appointed, which is a great improvement. The scavenger also collects house refuse monthly. A number of defective privies and ash pits repaired.

*Normanton.*—The scavenging still continues very satisfactory, and the system of sewers is now completed.

*Ockbrook.*—A short new sewer has been laid in Victoria Avenue and sewer in Green Lane lengthened. The sewers have been flushed and manholes cleaned out. The scavenging is done by contract, and house refuse is collected once a fortnight.

*Sandiacre.*—The sewers and manholes cleaned out. The scavenging continues satisfactory.

*Sawley.*—The sewage scheme is still in hand, and has been delayed owing to the difficulty of purchasing the necessary land. The scavenging still continues satisfactory. A number of old houses have been pulled down. The sewers are well attended to, flushed, and repaired when necessary, under the management of Mr. Rice.

*Shardlow.*—The outfall ditches, sewers, cesspools, and manholes have been cleaned out. The question of a much needed water supply is under consideration.

*Spondon.*—The scavenging is satisfactorily carried out by a contractor. The outfall ditches in the village and near Borrowash have been cleaned out, and culvert and bridge repaired.

*Stanley.*—Arrangements are being made with the Heanor and Ilkeston Water Board for a public supply of water.

*West Hallam.*—Arrangements are being made similar to those at Stanley for a public water supply.

*Weston-on-Trent.*—The outfall ditches have been cleaned out, also a sewer.

HENRY FORMAN,

*Surveyor and Sanitary Inspector.*

*Chellaston,*

*March, 1903.*

**Table shewing action taken by Sanitary  
Inspector during 1902.**

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**DWELLING HOUSES.**

Number Inspected	...	...	...	...	..	...	1221
Reported unfit for habitation		...	...	...	...	...	5
Notices served	...	...	...	...	..	...	3
Houses closed...	.	...	...	...	...	...	5
Repairs required	..	...	...	...	...	...	1
Notice served ...	...	...	...	...	...	...	1
House repaired	...	...	...	...	...	...	1
Houses disinfected after infectious disease	...		...	...	...	...	32
Inspections of work in abatement of nuisances	...		...	...	...	...	221
Inspections of privies and ashpits	...	...	...	...	...	...	758

**DAIRIES AND COWSHEDS.**

Number on register	...	...	...	...	...	...	53
Number of inspections	...	...	...	...	...	...	53

**BAKEHOUSES.**

Number on register	...	...	...	...	...	...	20
Number of inspections	...	...	...	...	...	...	20
Notices served for infringement of Regulations	...		...	...	...	...	7

**SLAUGHTER HOUSES.**

Number of inspections	...	...	...	...	...	...	16
Notice to cleanse	...	...	...	...	...	...	1

## WORKSHOPS.

Inspections made	...	...	...	...	...	47
Insufficient sanitary accommodation				...	...	8
Defects in	"	"		...	...	1
Notice to provide satisfactory means of escape in case of fire	...	...	...	...	...	1
Notice to limewash	...	...	...	...	...	4
Total number of inspections made				...	...	2382

## INFORMAL NOTICES.

		Notices served.	Nuisances abated.
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*Drainage.*

Disconnection of waste pipes	...	...	8	8
Defective trap, inlets, and drains	...	48	48	
Drains obstructed	...	5	5	

*Closets and Ashpits.*

Insanitary privies and ashpits...	...	91	89
Conversion of privies into pail closets...	...	55	55
Conversion of privies into w.c's	...	2	2
Defective water closets ...	...	3	3
Insufficient closet accommodation	...	4	4

*General Sanitation.*

Eaves, spouts, and downrights	...	1	1
Urinals defective	...	1	1
Water supply	...	10	5
Offensive accumulations	...	2	2
Overcrowding	...	7	5
Totals	...	232	223

## SHARDLOW RURAL DISTRICT.

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New Houses, &c, Built during Year ending  
December 31st, 1902.

Parish.	New Houses.	Additions.	Alterations
Aston-on-Trent	...	...	...
Barrow-on-Trent	...	...	...
Breadsall	...	...	...
Breaston	5	1	...
Chaddesden	...	...	...
Chellaston	5	1	...
Dale Abbey	...	...	1
Draycott	5	...	...
Elvaston	...	...	...
Little Eaton	6	...	...
Littleover	8	...	...
Melbourne	12	...	...
Normanton	2	...	...
Ockbrook	5	...	...
Sandiacre	18	...	...
Sawley	35	1	...
Shardlow	6	1	...
Spondon	2	2	...
Stanley	...	...	...
Stanton-by-Dale	...	...	...
West Hallam	2	...	...
Weston-on-Trent	1	...	...
<b>Totals</b>	<b>112</b>	<b>6</b>	<b>1</b>

HY. FORMAN,

SURVEYOR AND INSPECTOR.

